

CLAIMS:

1. A remote control device suitable for use in a locomotive remote control system,
the locomotive remote control system having a locomotive control device
5 mounted on board a locomotive, said remote control device comprising:
 - a first input for receiving from a user a signal conveying a command;
 - a second input for receiving configuration information;
 - a processing unit in communication with said first input and said second
input, said processing unit being adapted for:
 - 10 a) acquiring a certain set of operational settings on the basis of said
configuration information;
 - b) generating digital command signals on the basis of the signal received at
said first input and said certain set of operational settings, said digital
command signals conveying command data to the locomotive control
15 device;
 - a transmission unit in communication with said processing unit for
receiving the digital command signals and for generating an RF transmission
conveying the digital command signals to the locomotive control device.
- 20 2. A remote control device as defined in claim 1, wherein said configuration
information includes programming information, said programming information
being operative for modifying a default set of operational settings to derive said
certain set of operational settings.
- 25 3. A remote control device as defined in claim 1, wherein said configuration
information is operative for selecting said certain set of operational settings
from a plurality of sets of operational settings.
4. A remote control device as defined in claim 3, wherein each set of operational
30 settings in the plurality of sets of operational settings is associated to a
respective user of the remote control device, and wherein said configuration
information is indicative of user identification data.

5. A remote control device as defined in claim 3, wherein each set of operational settings in the plurality of sets of operational settings is associated to a certain geographical location.
- 5 6. A remote control device as defined in claim 5, wherein a set of operational settings in the plurality of operational settings is associated to a switchyard condition.
- 10 7. A remote control device as defined in claim 1, wherein said certain set of operational settings includes a setting associated to a parameter selected from the list consisting of speed, transmission frequency, repetition rate, repetition pattern, clock information, permission level, and horn sound.
- 15 8. A remote control device as defined in claim 1, wherein said second input is an RF input for receiving said configuration information over a wireless communication link.
9. A remote control device as defined in claim 1, wherein said second input is a user activated input for enabling a user to enter said configuration information.
- 20 10. A remote control device as defined in claim 1, wherein said remote control device is a portable unit.
- 25 11. A locomotive control device suitable for use in a locomotive remote control system and adapted for being mounted in a locomotive having a control interface, said locomotive control device comprising:
 - a first input for receiving from a remote control device a signal conveying a command;
 - 30 - a second input for receiving configuration information;
 - a processing module in communication with said first input and said second input, said processing module being adapted for:

- a) acquiring a certain set of operational settings on the basis of said configuration information;
 - b) generating local control signals on the basis of the signal received at said first input and said set of operational settings, said local control signals conveying a command to be implemented by the control interface;
- 5 - a transmission module in communication with said processing module for receiving the local control signals and for transmitting said local control signals to the control interface.
- 10 12. A locomotive control device as defined in claim 11, wherein said configuration information includes programming information, said programming information being operative for modifying a default set of operational settings to derive said certain set of operational settings.
- 15 13. A locomotive control device as defined in claim 11, wherein said configuration information is operative for selecting the certain set of operational settings from a plurality of sets of operational settings.
- 20 14. A locomotive control device as defined in claim 13, wherein at least some sets of operational settings in the plurality of sets of operational settings are associated to respective users of the locomotive remote control system, and wherein said configuration information is indicative of user identification data.
- 25 15. A locomotive control device as defined in claim 13, wherein at least some sets of operational settings in the plurality of sets of operational settings are associated to certain geographical locations.
- 30 16. A locomotive control device as defined in claim 15, wherein a set of operational settings in the plurality of sets of operational settings is associated to a switchyard condition.

17. A locomotive control device as defined in claim 11, wherein said certain set of operational settings includes a setting associated to a parameter selected from the list consisting of speed, transmission frequency, repetition rate, repetition pattern, clock information, permission level, and horn sound.
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18. A locomotive control device as defined in claim 11, wherein said first input and said second input are the same physical input.
19. A locomotive control device as defined in claim 11, wherein said second input is an RF input for receiving said configuration information over a wireless communication link.
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20. A remote control device suitable for use in a locomotive remote control system, the locomotive remote control system having a locomotive control device mounted on board a locomotive, said remote control device comprising:
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- a user interface for enabling a user to enter a signal conveying a command;
 - an input for receiving configuration information;
 - a processing unit in communication with said input, said processing unit being adapted for causing said user interface to acquire a certain set of display settings on the basis of said configuration information.
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21. A remote control device as defined in claim 20, wherein said configuration information includes programming information, said programming information being operative for modifying a default set of display settings of said user interface in order to derive said certain set of display settings.
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22. A remote control device as defined in claim 20, wherein said configuration information is operative for selecting said certain set of display settings from a plurality of sets of display settings.
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23. A remote control device as defined in claim 22, wherein each set of display settings in the plurality of sets of display settings is associated to a respective

user of the remote control device, and wherein said configuration information is indicative of user identification data.

24. A remote control device as defined in claim 22, wherein each set of display settings in the plurality of sets of display settings is associated to a certain geographical location.
25. A remote control device as defined in claim 20, wherein said set of display settings include a setting associated to a display element selected from the set consisting of an icon, background colour, night vision and speed settings.
26. A remote control device as defined in claim 20, wherein said input is an RF input for receiving said configuration information over a wireless communication link.
27. A remote control device as defined in claim 20, wherein said remote control device is a portable unit.
28. A locomotive remote control system, comprising:
 - a remote control device having:
 - a) a first input for receiving from a user a signal conveying a command;
 - b) a second input for receiving configuration information;
 - c) a processing unit in communication with said first input and said second input, said processing unit being adapted for:
 1. acquiring a set of operational settings on the basis of said configuration information;
 2. generating digital command signals on the basis of the signal received at said first input and said set of operational settings, said digital command signals conveying command data to the locomotive control device;
 3. a transmission unit in communication with said processing unit for receiving the digital command signals and for generating an RF

transmission conveying the digital command signals to a locomotive control device;

- a locomotive control device suitable for mounting on board a locomotive, said locomotive control device comprising:

- 5 a) an input for receiving the digital command signals;
- b) a processing module for generating local control signals for causing the locomotive to execute commands conveyed by the digital command signals.

10 29. A remote control device suitable for use in a locomotive remote control system, the locomotive remote control system having a locomotive control device mounted on board a locomotive, said remote control device comprising:

- input means for receiving from a user a signal conveying a command and for receiving configuration information;
- 15 - processing means adapted for:
 - a) acquiring a set of operational settings on the basis of said configuration information;
 - b) generating digital command signals on the basis of the signal conveying a command and said set of operational settings, said digital command
- 20 signals conveying command data to the locomotive control device;
- transmission means for receiving the digital command signals and for generating an RF transmission conveying the digital command signals to the locomotive control device.

25 30. A remote control device suitable for use in a locomotive remote control system, the locomotive remote control system having a locomotive control device mounted on board a locomotive, said remote control device comprising:

- a first input for receiving a signal from a user conveying a command;
- a second input for receiving configuration information;
- 30 - a processing unit in communication with said first input and said second input, said processing unit being adapted for:

- a) acquiring a certain set of switchyard operational settings on the basis of said configuration information;
 - b) generating digital command signals on the basis of the signal received at said first input and said certain set of switchyard operational settings, said digital command signals conveying command data to the locomotive control device;
 - a transmission unit in communication with said processing unit for receiving the digital command signals and for generating an RF transmission conveying the digital command signals to the locomotive control device.
31. A remote control device suitable for use in a locomotive remote control system, the locomotive remote control system having a locomotive control device mounted on board a locomotive, said remote control device comprising:
- a first input for receiving from a user a signal conveying a command;
 - a second input for receiving configuration information;
 - a processing unit in communication with said first input and said second input, said processing unit being adapted for:
 - a) acquiring a certain set of user related operational settings on the basis of said configuration information;
 - b) generating digital command signals on the basis of the signal received at said first input and said certain set of user related operational settings, said digital command signals conveying command data to the locomotive control device;
 - a transmission unit in communication with said processing unit for receiving the digital command signals and for generating an RF transmission conveying the digital command signals to the locomotive control device.
32. An apparatus suitable for configuring a locomotive remote control system, the locomotive remote control system having a remote control device and a locomotive control device, said apparatus comprising:
- a processing unit for storing configuration information relating to at least one set of operational settings;

- a transmission unit operative for:
 - a) establishing a communication link with the remote control device;
 - b) transmitting the configuration information to the remote control device over the communication link, said configuration information causing the remote control device to acquire a certain set of operational settings.

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33. An apparatus as defined in claim 32, wherein said configuration information includes programming information, said programming information being operative for modifying a default set of operational settings stored at the remote control device.
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34. An apparatus as defined in claim 32, wherein said configuration information is operative for selecting said certain set of operational settings from a plurality of sets of operational settings stored at the remote control device.
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35. An apparatus as defined in claim 32, wherein said certain set of operational settings includes a setting associated to a parameter selected from the list consisting of speed, transmission frequency, repetition rate, repetition pattern, clock information, permission level, and horn sound.
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36. An apparatus as defined in claim 1, wherein said communication link is an RF link for transmitting said configuration information over a wireless communication link.

25 37. An apparatus as defined in claim 1, wherein said communication link is a wire-line link for transmitting said configuration information over a wire-line communication link.

30 38. An apparatus suitable for configuring a locomotive remote control system, the locomotive remote control system having a remote control device and a locomotive control device, said apparatus comprising:

- a processing unit for storing configuration information relating to at least one set of operational settings;
- a transmission unit operative for:
 - a) establishing a communication link with the locomotive control device;
 - b) transmitting the configuration information to the locomotive control device over the communication link, said configuration information causing the locomotive control device to acquire a certain set of operational settings.

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